Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Amendment of 47 CFR to adopt the Digital Opportunity Data Collection	)	WC Docket Nos. 11-10 and 19-195; FCC No. 19-79

September 20, 2019

Reply Comments of
NORTH CAROLINA DEPARTMENT OF INFORMATION TECHNOLOGY
BROADBAND INFRASTRUCTURE OFFICE

Introduction

We support the Commission's efforts to increase the granularity of the provider data submissions in the near-term, while at the same time working towards a goal of creating a national database of addresses to have the most-granular data possible in the future. Gathering more accurate data serves two primary objectives: it makes the business case for expanding service to an area, and it makes the case for federal or state funding support.

In North Carolina we have seen successful broadband expansion through demand aggregation or crowdsources initiatives. Using this data and comprehensive community planning efforts have incentivized incumbents to expand or upgrade service or encourage new market entrants, or both. We have also used the data to verify the need for funding support.

Having worked at the state-level to identify additional data sources to add granularity to the Form 477 data, we are encouraged by the Commission's effort. We submit the follow comments to encourage the Commission to clarify and specify the rule. We offer recommendations to help give specificity to the proposed requirements.

Comments Addressing Specific Provisions of the Proposed Rule

Polygons
We are concerned the rule does not define the parameters of polygons. We encourage the Commission to consider prescribed geographic identifiers to define the polygons.

Crowdsourced Data
We are encouraged by the Commission's willingness to accept crowdsourced data to challenge or correct provider submitted data. In North Carolina the lack of detailed, granular data for planning and funding accuracy has led us to develop community surveys and a speed reporting tool.

On-the-ground, local initiatives can add a great deal of value to the data collection initiative. We are encouraged that the Commission recognizes that the people "who live and work in" an area play a vital role in identifying unserved areas.

We encourage people who find the Form 477 data regarding their location inaccurate to use our online resource to report no coverage or to take a speed test to show inaccurate provider reporting. Thirty counties in the state have surveyed their residents to better identify unserved areas.

Using the results from these initiatives allows us to engage with Internet Service Providers (ISPs) to demonstrate population density and a viable market. Typically, incumbents do not have the resources to spend on researching rural areas. We use this data to incentivize incumbents to deploy or to recruit new ISPs to the market, or both. We have also successfully used the information when applying for grant funding.

Soon we plan to overlay Form 477 data with this data, Census Bureau data, CAF II data and USDA data to define the unserved areas for the state's rural broadband grant program (Growing Rural Economies with Access to Technology (GREAT)). This will allow us to target limited resources to make the most significant impact.

At the state level we have struggled with survey standardization. We encourage the Commission and USAC to create a common set of criteria that all communities, states, Tribes or other entities should use when submitting crowdsourced data. We recommend requiring:

- The latitude and longitude of every location submitted,
- Whether service is not available,
- The service provider,
- Speed test results: average of 3 tests taken on different days, at different times over the course of 7 days, and
- The contracted speed.

Using this data as the baseline requirements assures essential data will be captured accurately and can be applied uniformly across the nation.

File Formats
Paragraph 15 states that the Universal Service Administration Company (USAC) will publish complete instructions for filing data, designate precise specifications for the coverage polygons and define the GIS file formats.

Based on our experience administering the state's rural broadband grant program (Growing Rural Economies with Access to Technology), we found that acceptable formats should only be shapefile or file geodatabase, both being fully attributed. Accepting KML, CAD, or other formats becomes problematic due to lack of proper attributes, unclear symbology/geometry, and cases where polylines are being used instead of completed polygons.

Service Activation
Paragraph 13 defines “served” to include areas a provider can provide connection within 10 business days without "extraordinary commitment of resources, and without construction charges or fees exceeding an ordinary service activation fee."

We find the term 'ordinary service activation fee' is very subjective. Is there a fee threshold that is defined as "ordinary"? If so, we suggest the Commission use a more objective term.

National Address Database
Paragraph 30 states the intent of commission to pursue future location-specific data (national database of addresses).

We encourage the Commission’s use of statewide addressing initiatives to contribute to creation of nationwide addressing database. In North Carolina the NC Next-Gen 911 implementation will create a statewide address data base. However, NG911 addressing database will not be implemented fully until at least late 2021 or 2022. Because the state’s address database is a couple of years from completion, we encourage the Commission to consider alternative approaches before distributing funding through the Rural Digital Opportunity Fund (RDOF).

Alternatives could include using the US Telecom "Broadband Serviceable Location Fabric" recently developed and piloted in two states together with crowdsourced data and more granular provider data. Also, there are possible public datasets at the state level for some of these datasets that could contribute to developing this database.

Geocoding
Paragraph 79 asks whether the Commission should prescribe rules for Internet Service Provider (ISP) reporting and which methodologies should be used for developing polygons.

We are concerned with the inconsistencies found in the geocoding of addresses. Depending on the format of the address, the data and application can produce unreliable locations, which would in turn impacts the accuracy of the polygon produced from the list of addresses.

If successful, a mapping interface where a small provider can upload a list of addresses, validate the accuracy of those addresses directly in the map interface, and then fill in the attributes (i.e. speeds delivered, technology, etc.) could provide an avenue for smaller providers to validate their own address data.

Once the addresses have been mapped and confirmed by the provider, they could be used to identify the service areas for that provider. This could be part of the USAC portal for providers to upload data. Providers could either upload their own GIS data (Shapefiles or File Geodatabases) or use the map interface to create their coverage areas.

Conclusion

We are encouraged by the Commission’s decision to develop a data collection methodology that will show a more accurate picture of broadband coverage throughout the nation. We believe this initiative will also lead to more efficient planning, incentivize deployment and impactful funding. With limited

resources available to close the digital divide it is imperative that we use the most accurate data possible to surgically target the areas in need.

NCDIT Broadband Infrastructure Office

The Broadband Infrastructure Office is a division of the North Carolina Department of Information Technology. The office administers the GREAT Grant and provides policy and technical guidance to local and state leaders seeking to expand and enhance affordable, high-speed internet access in their communities. The office understands that broadband can enhance a community's viability and livelihood by creating income opportunities, facilitating greater civic and cultural participation, expanding educational opportunities, and providing access to health care providers and other essential services.